

REMARKS

Reconsideration is requested.

Claims 22, 24, 26, 27 and 29-32 are pending.

The Section 103 rejection of claims 22, 24, 26, 27 and 29-32 over Bellamy (Cancer Research 1999 February, 59:728-733), Shitara (U.S. Patent No. 6,617,160), Rockwell (U.S. Patent No. 5,840,301), and Greenwood et al (Protein Engineering of Antibody Molecules for Prophylactic and Therapeutic Applications in Man, 1993, pp 85-100), is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following distinguishing comments.

The present invention relates to a method for treating leukemia, comprising administering a humanized anti-human VEGF receptor Flt-1 antibody which destroys leukemia cells through antibody-dependent cellular cytotoxic (ADCC) activity. Shitara et al. is understood to disclose only a neutralizing antibody against Flt-1, and neither disclose nor suggest a humanized anti-human Flt-1 antibody having ADCC activity. Similarly, Rockwell et al. are understood to produce only a flk-1 antibody (mouse KDR antibody), and do not teach or suggest a humanized Flt-1 antibody having ADCC activity. That is, while the antibodies of Shitara et al. and Rockwell et al. may be capable of inhibiting signal transduction, they cannot destroy leukemia cells. Figs. 1 and 2 in Greenwood et al. show that IgG1 has higher ADCC activity than other IgG subclasses. However, if an antibody belonging to human IgG1 type is prepared in order to obtain an antibody having relatively high ADCC activity, the antibody obtained would not necessarily destroy target cells to treat leukemia. The antibody used in the presently claimed invention is a humanized antibody which destroys leukemia cells

through ADCC activity, and such an antibody having such an unexpected and superior property is neither disclosed nor suggested in the cited references.

The presently claimed invention provides, for the first time, a method for inhibiting growth of leukemia cells by administering a humanized anti-Flt-1 antibody having ADCC activity to leukemia cells. Therefore, even if Bellamy et al were combined with Shitara et al, Rockwell et al and Greenwood et al., assuming motivation could be found in the art to have combined the references, which the applicants do not believe exists, a successful treatment for leukemia would not have been produced. Accordingly, the presently claimed invention would not have been obvious from the cited art.

Withdrawal of the Section 103 rejection of claims 22, 24, 26, 27 and 29-32 over Bellamy, Shitara, Rockwell and Greenwood is requested.

To the extent not obviated by the above, the Section 112, first paragraph "written description", rejection of claims 22, 24, 26-27 and 29-32 is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following further comments.

The applicants submit that the recitations in claims 22 and 29 are supported, for example, at page 48, lines 12-17 and page 51, lines 3-8 in the present specification.

Withdrawal of the Section 112, first paragraph "written description", rejection is requested.

The Section 112, first paragraph "enablement", rejection of claims 24 and 32, is obviated by the following.

The applicants confirm with the attached that hybridomas producing antibodies KM1730, KM1731, KM1732, KM1748 and KM1750 have been deposited according to

the Budapest Treaty. The applicants further confirm that all restrictions imposed by the depositor on the availability to the public of the deposited material will be irrevocably removed upon the granting of a patent claiming subject matter where release is believed to be required for support of the claims.


Withdrawal of the Section 112, first paragraph "enablement", rejection of claims 24 and 32 is requested.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned in the event anything further is required.

Respectfully submitted,

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